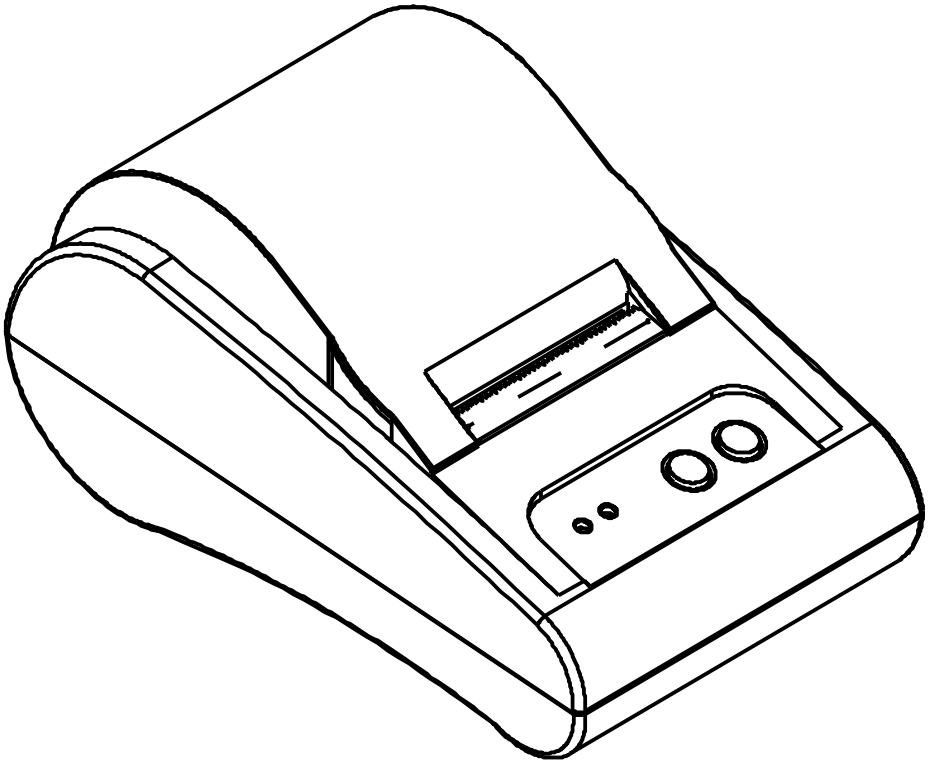
BIXOLON®

Windows Driver Manual

STP-103II

Thermal Printer

Rev. 1.02



http://www.bixolon.com

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1. Manual Information

This Windows Driver Installation Manual provides information on installation, detailed specifications, and usage of the printer's Windows Driver according to PC operating system (OS).

We at BIXOLON maintain ongoing efforts to enhance and upgrade the functions and quality of all our products. In following, product specifications and/or user manual content may be changed without prior notice.

2. Operating System (OS) Environment

The following operating systems are supported for usage.

Microsoft Windows XP (32bit/64bit)
Microsoft Windows Server 2003 (32bit/64bit)
Microsoft Windows VISTA (32bit/64bit)
Microsoft Windows Server 2008 (32bit/64bit)
Microsoft Windows Server 2008R2 (64bit)
Microsoft Windows 7 (32bit/64bit)
Microsoft Windows 8 (32bit/64bit)

3. Windows Driver Preparation

The Windows Driver is included in the enclosed CD, and Latest file versions can be downloaded from the Bixolon website. **(www.bixolon.com)**

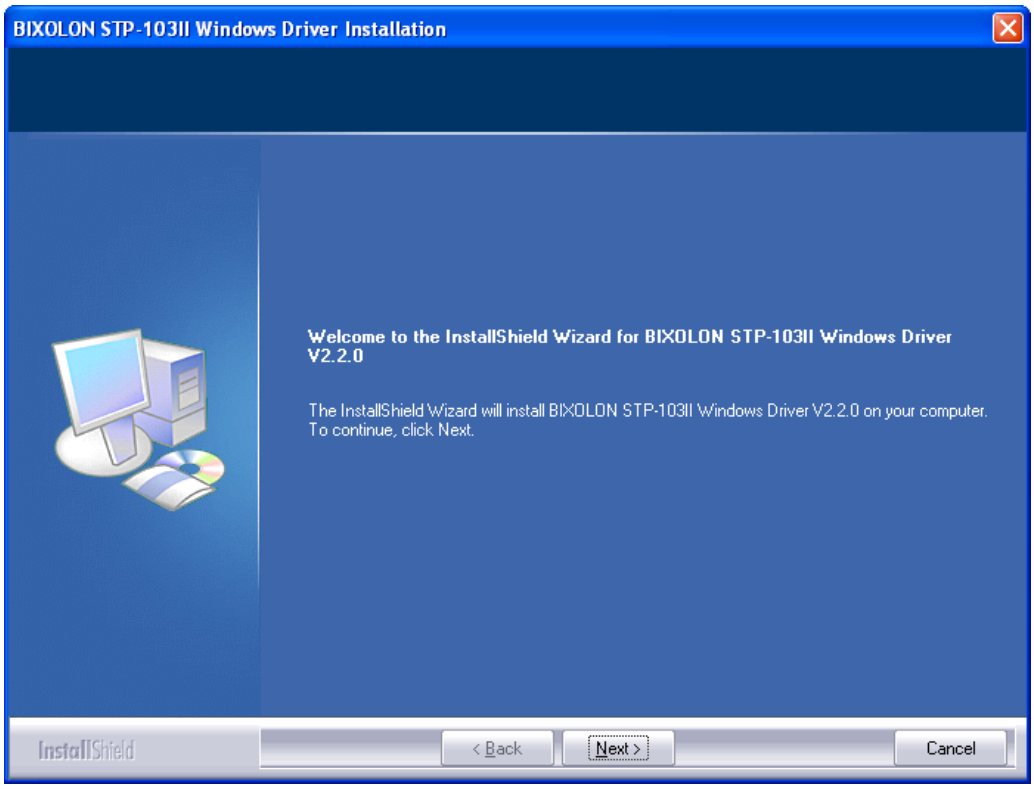
4. Windows Driver Installation

4-1 Installing on Windows XP / Server 2003

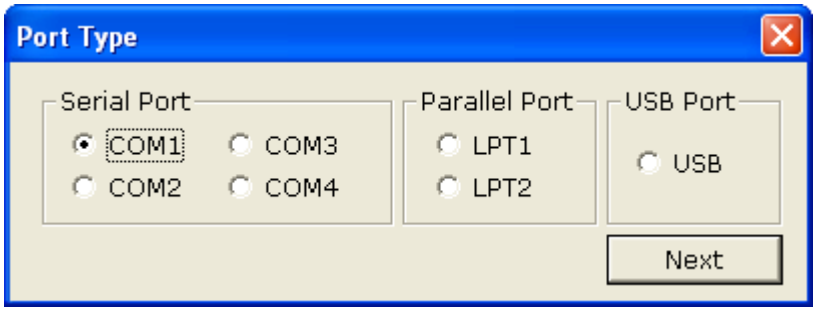
4-1-1 Via Serial Port or Parallel Port

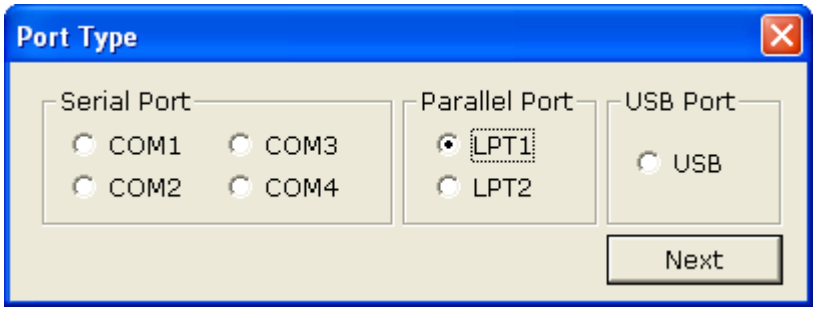
1) Double-click the Windows Driver installation file.

2) Click “Next”.

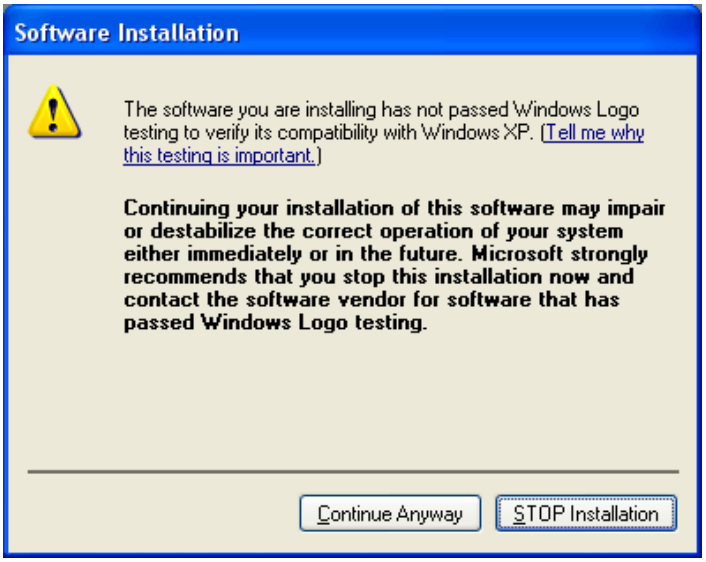

BIXOLON STP-103II Windows Driver Installation
Welcome to the InstallShield Wizard for BIXOLON STP-103II Windows Driver V2.2.0
The InstallShield Wizard will install BIXOLON STP-103II Windows Driver V2.2.0 on your computer. To continue, click Next.
InstallShield
< Back
Next >
Cancel

3) Select a COM port or LPT port to be used and then click “Next”





4) When the following message box appears, click “Continue Anyway”.


Software Installation
The software you are installing has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)
Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the software vendor for software that has passed Windows Logo testing.
Continue Anyway
STOP Installation

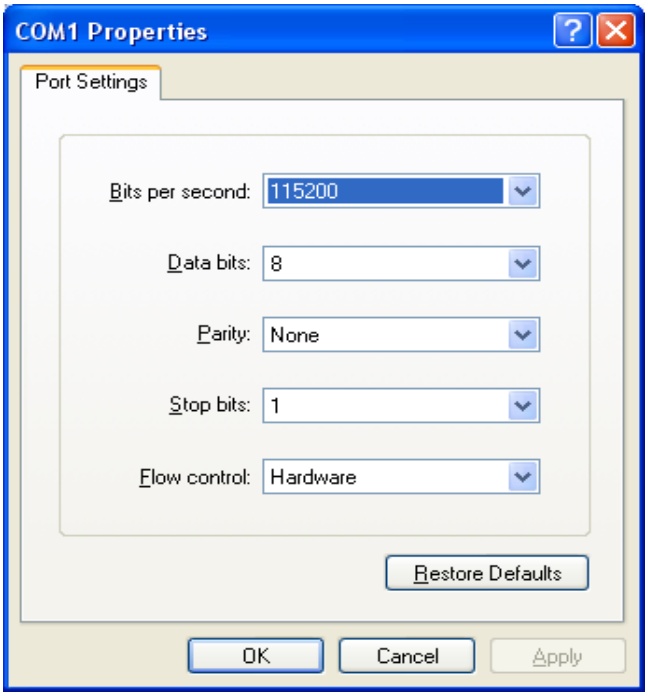
5) Click “Yes” to reboot the PC.

Restarting your computer can take effect.
Please restart your computer.
[Yes] I want to restart my computer now.
[No] I will restart my computer later.
Yes
No

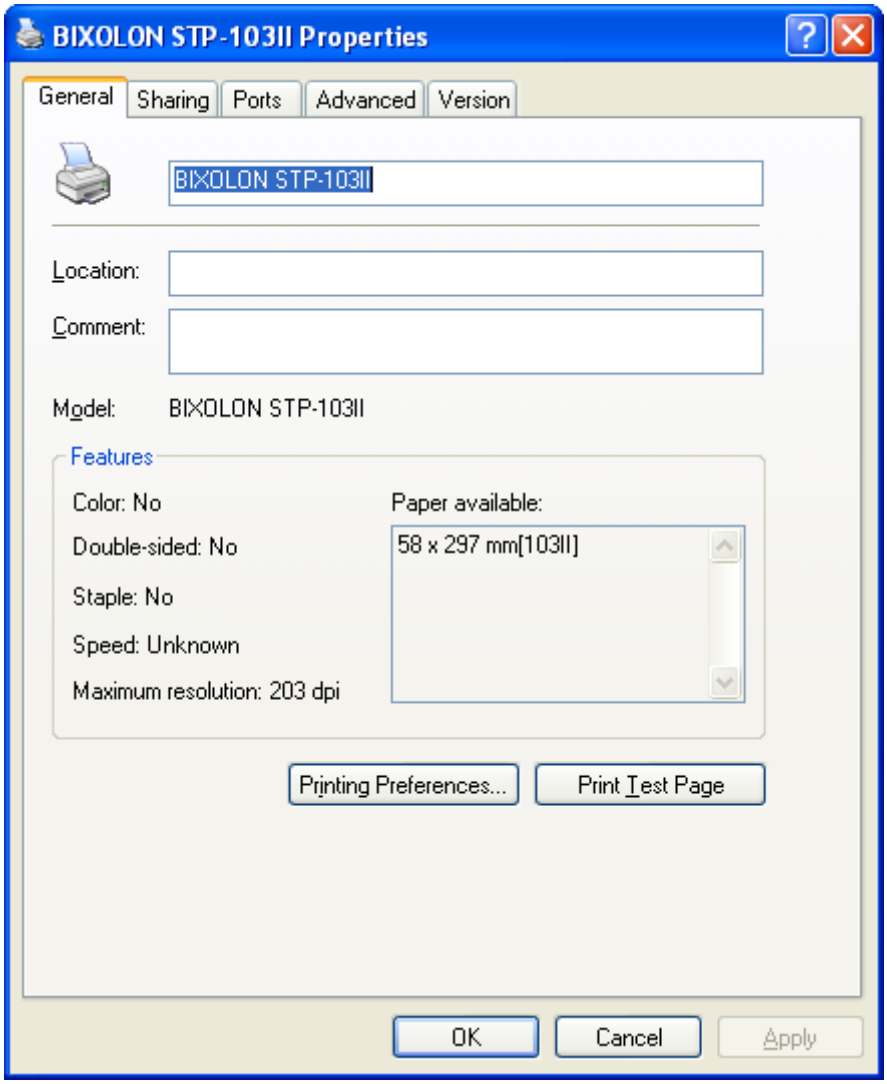
6) Open the printer properties window in the Windows OS.
※ Control Panel – Printers and Faxes.

7) In the “Ports” tab, click “Configure Port…”
※ Pass this step if you are using a parallel port.

8) Match the communication settings to those of the printer. The communication settings of the printer can be performed by conducting a self-test.
※ Pass this step if you are using a parallel port.



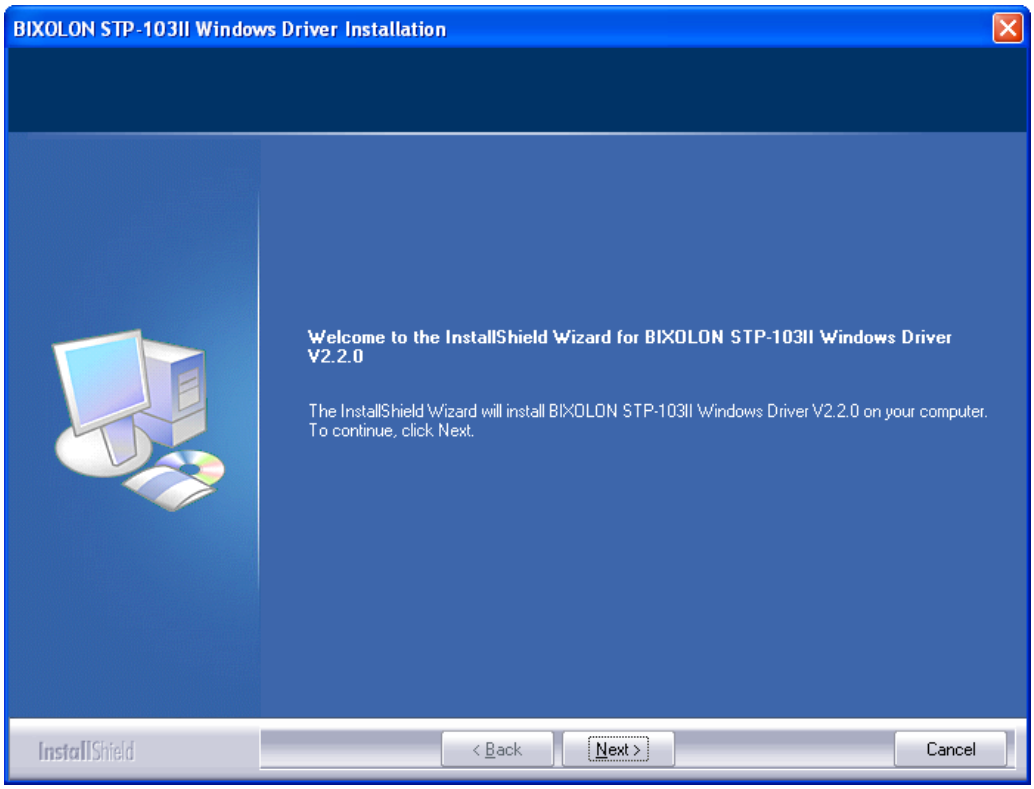
9) Click “Print Test Page” and check printing status. Proper installation of the driver is indicated if the test page is printed normally.



4-1-2 Via USB Port

1) Double-click the Windows Driver installation file.

2) Click “Next”.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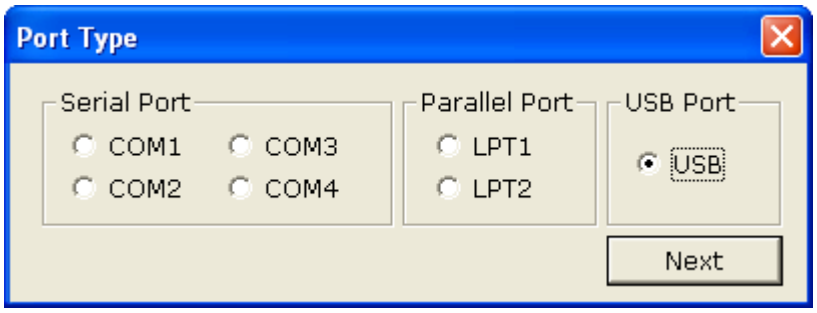
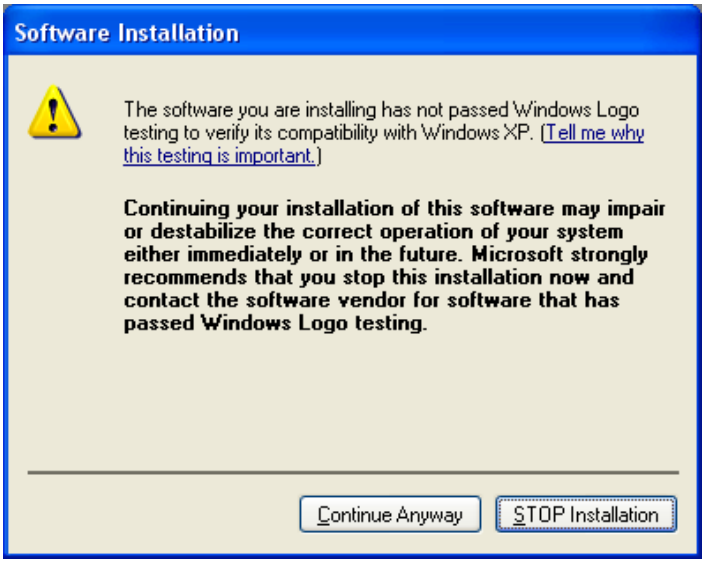
Welcome to the InstallShield Wizard for BIXOLON STP-103II Windows Driver V2.2.0
The InstallShield Wizard will install BIXOLON STP-103II Windows Driver V2.2.0 on your computer. To continue, click Next.
InstallShield
< Back
Next >
Cancel

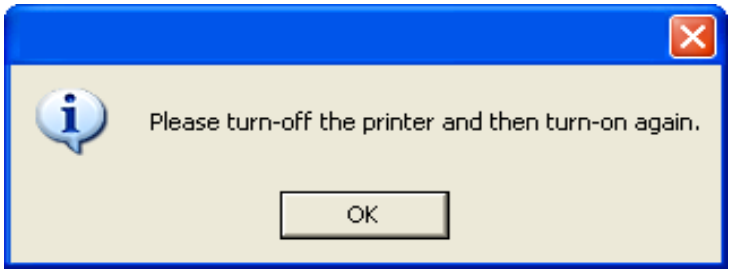
3) Select “USB” and then click “Next”.



4) When the following message box appears, click “Continue Anyway”.


Software Installation
The software you are installing has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)
Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the software vendor for software that has passed Windows Logo testing.
Continue Anyway
STOP Installation

5) Click “OK”.

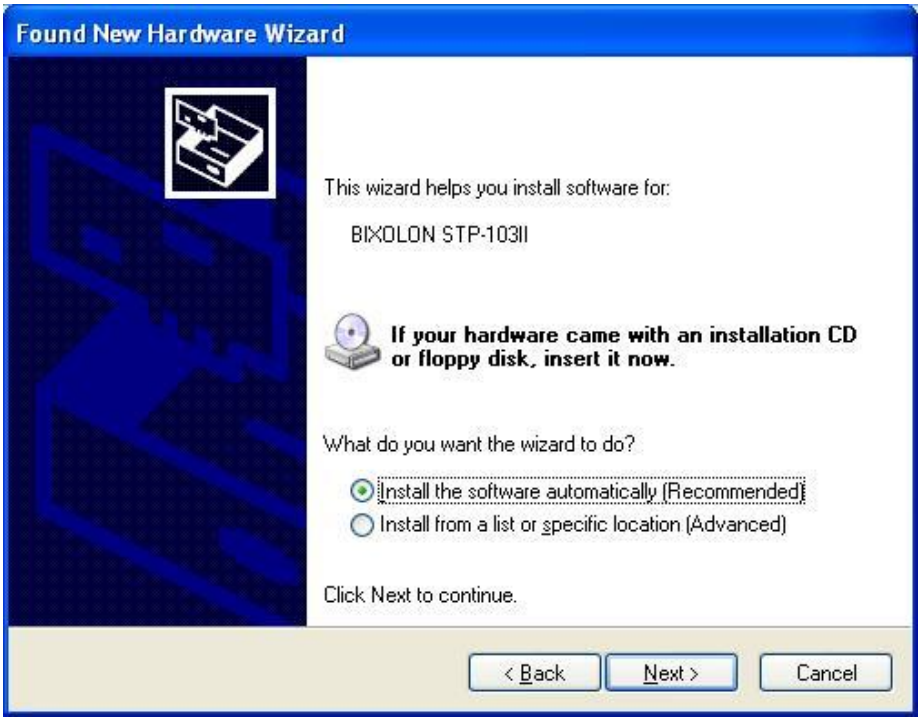


6) Turn off the printer and then turn it on.

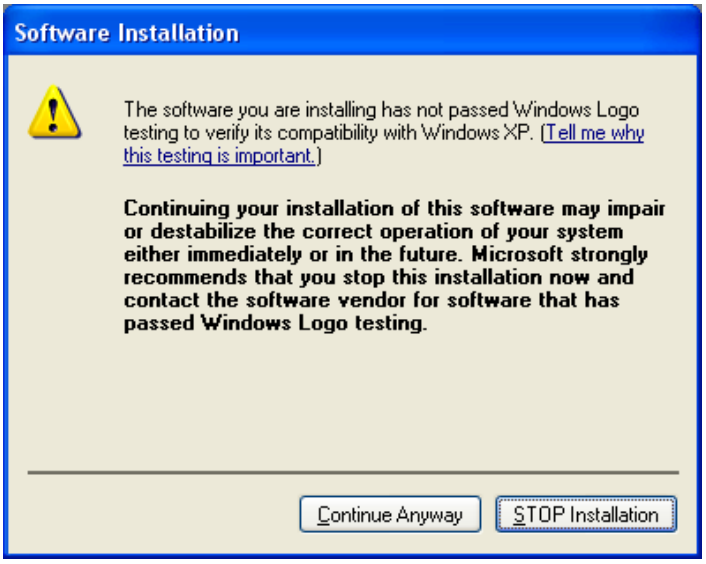
7) When the New Hardware Wizard appears for the installation of the Windows Driver, select the option as shown below and click “Next”.

Found New Hardware Wizard
Welcome to the Found New Hardware Wizard
Windows will search for current and updated software by looking on your computer, on the hardware installation CD, or on the Windows Update Web site (with your permission).
Read our privacy policy
Can Windows connect to Windows Update to search for software?
Yes, this time only
Yes, now and every time I connect a device
No, not this time
Click Next to continue.
< Back
Next >
Cancel

8) Click “Next”.


Found New Hardware Wizard
This wizard helps you install software for:
BIXOLON STP-103II
If your hardware came with an installation CD or floppy disk, insert it now.
What do you want the wizard to do?
Install the software automatically (Recommended)
Install from a list or specific location (Advanced)
Click Next to continue.
< Back
Next >
Cancel

9) When the following message box appears, click “Continue Anyway”.


Software Installation
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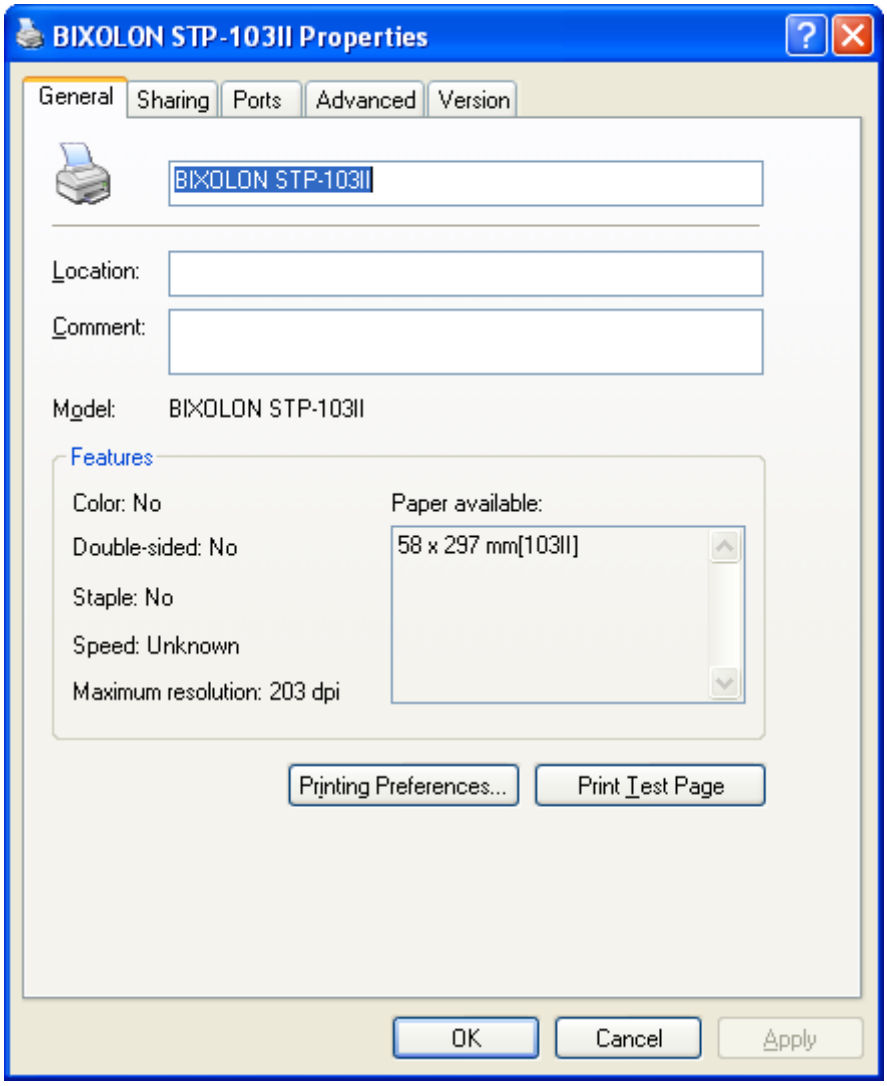
Continue Anyway
STOP Installation

10) Click “Finish”.

11) Open the printer properties window in the Windows OS.
※ Control Panel – Printers and Faxes.

12) Click “Print Test Page” and check printing status. Proper installation of the driver is indicated if the test page is printed normally.

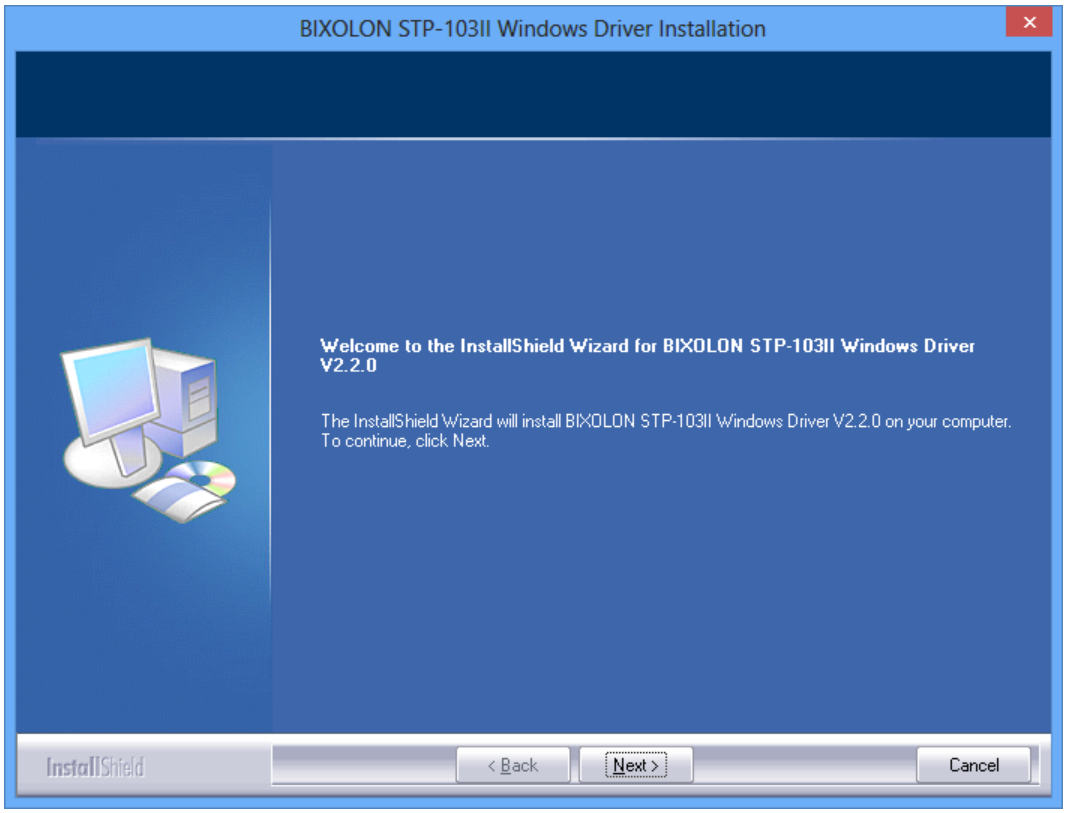


4-2 Installing on Windows VISTA / Server 2008 / 7 / 8

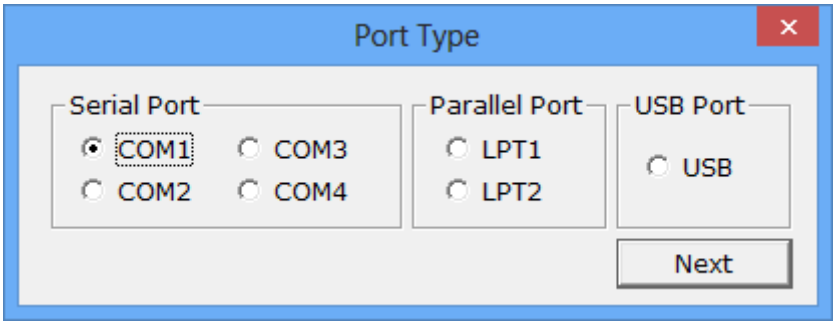
4-2-1 Via Serial Port or Parallel Port

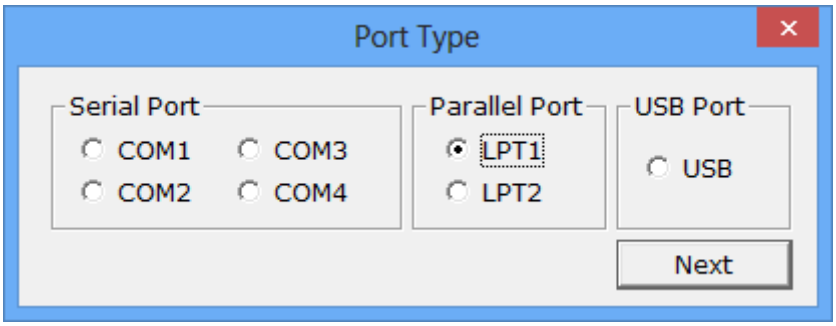
1) Double-click the Windows Driver installation file.

2) Click “Next”.

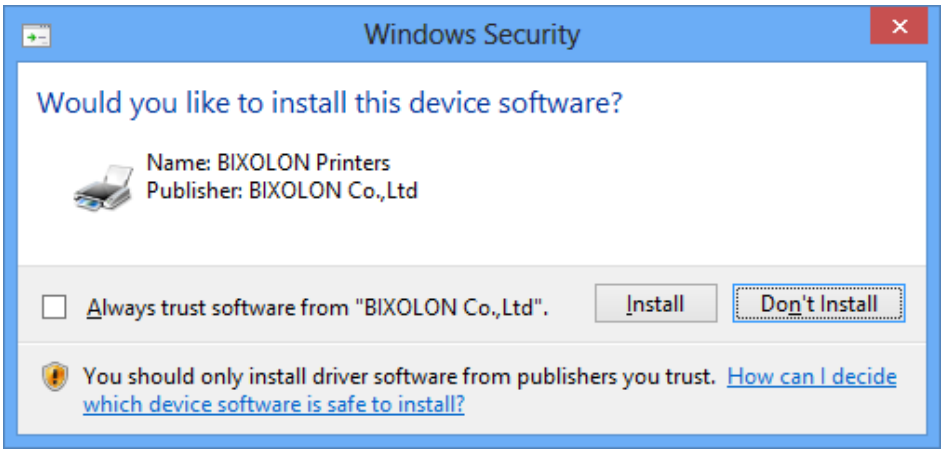

BIXOLON STP-103II Windows Driver Installation
Welcome to the InstallShield Wizard for BIXOLON STP-103II Windows Driver V2.2.0
The InstallShield Wizard will install BIXOLON STP-103II Windows Driver V2.2.0 on your computer. To continue, click Next.
InstallShield
< Back
Next >
Cancel

3) Select a COM port or LPT port to be used and then click “Next”.

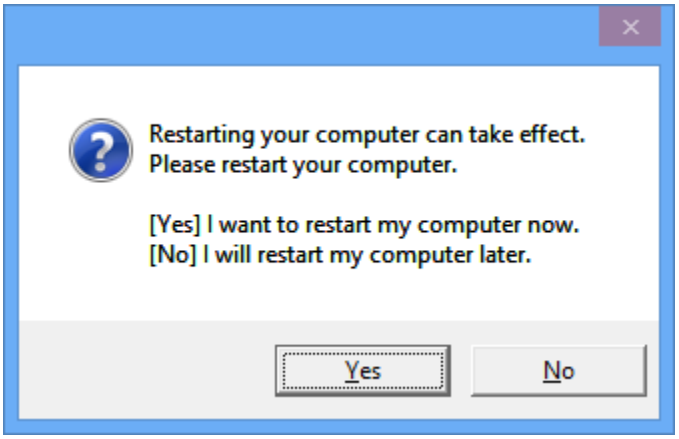




4) When the following message box appears, click “Install”.


Windows Security
Would you like to install this device software?
Name: BIXOLON Printers
Publisher: BIXOLON Co.,Ltd
Always trust software from "BIXOLON Co.,Ltd".
Install
Don't Install
You should only install driver software from publishers you trust. How can I decide which device software is safe to install?

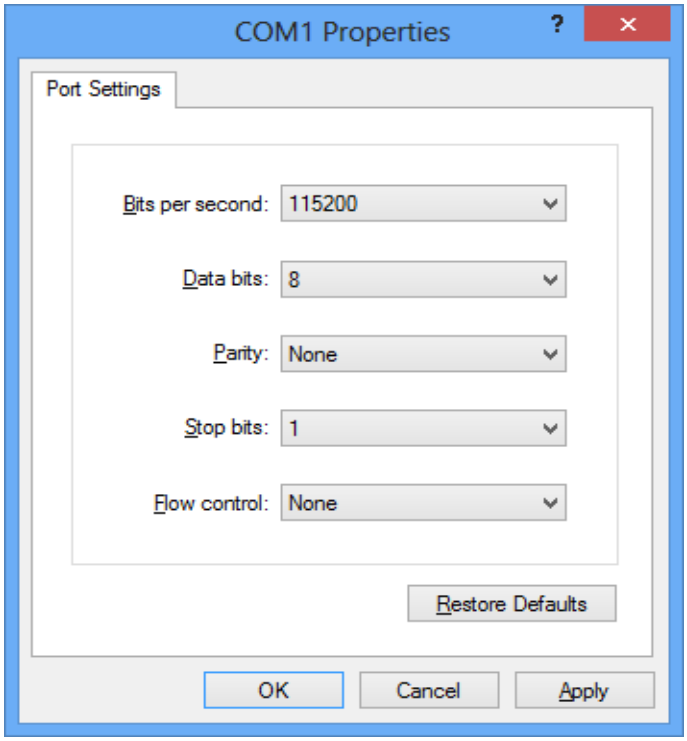
5) Click “Yes” to reboot the PC.


Restarting your computer can take effect.
Please restart your computer.
[Yes] I want to restart my computer now.
[No] I will restart my computer later.
Yes
No

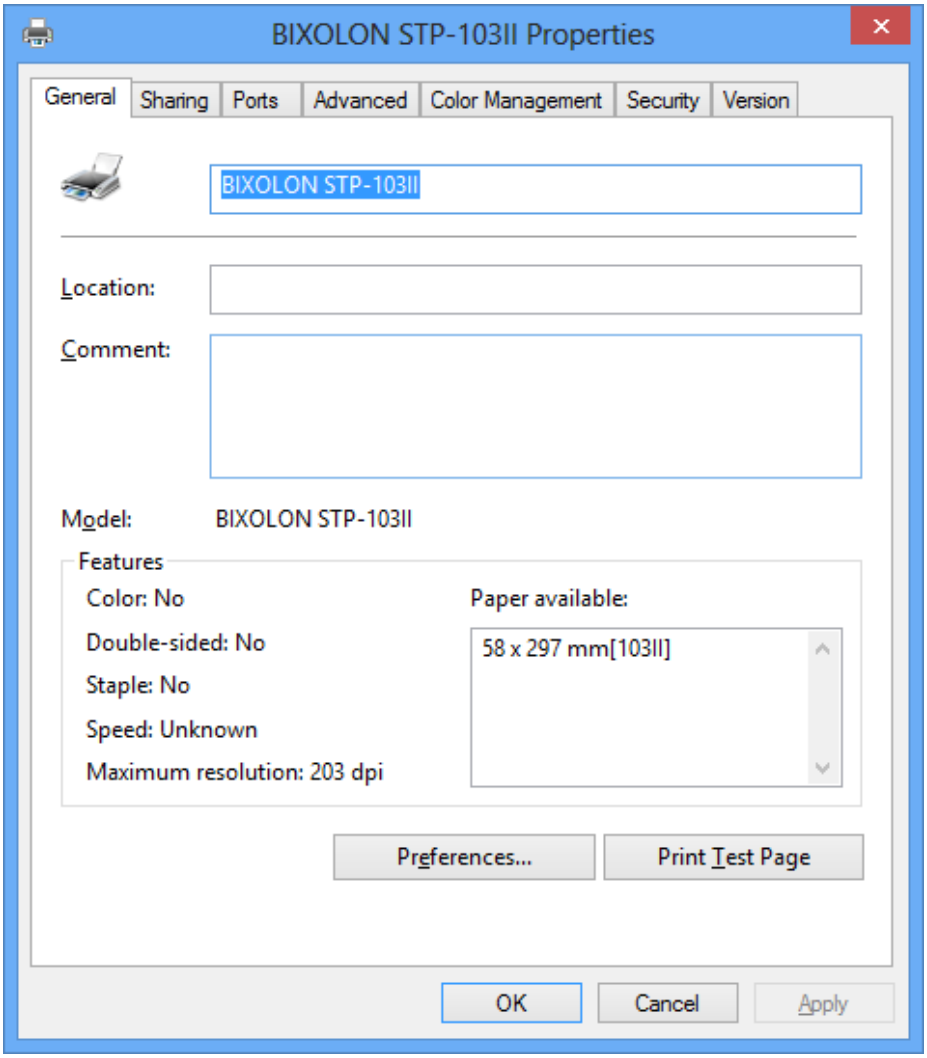
6) Open the printer properties window in the Windows OS.
※ Control Panel – Hardware and Sound – Device and Printers.

7) In the “Ports” tab, click “Configure Port…”
※ Pass this step if you are using a parallel port.

8) Match the communication settings to those of the printer. The communication settings of the printer can be performed by conducting a self-test.
※ Pass this step if you are using a parallel port.



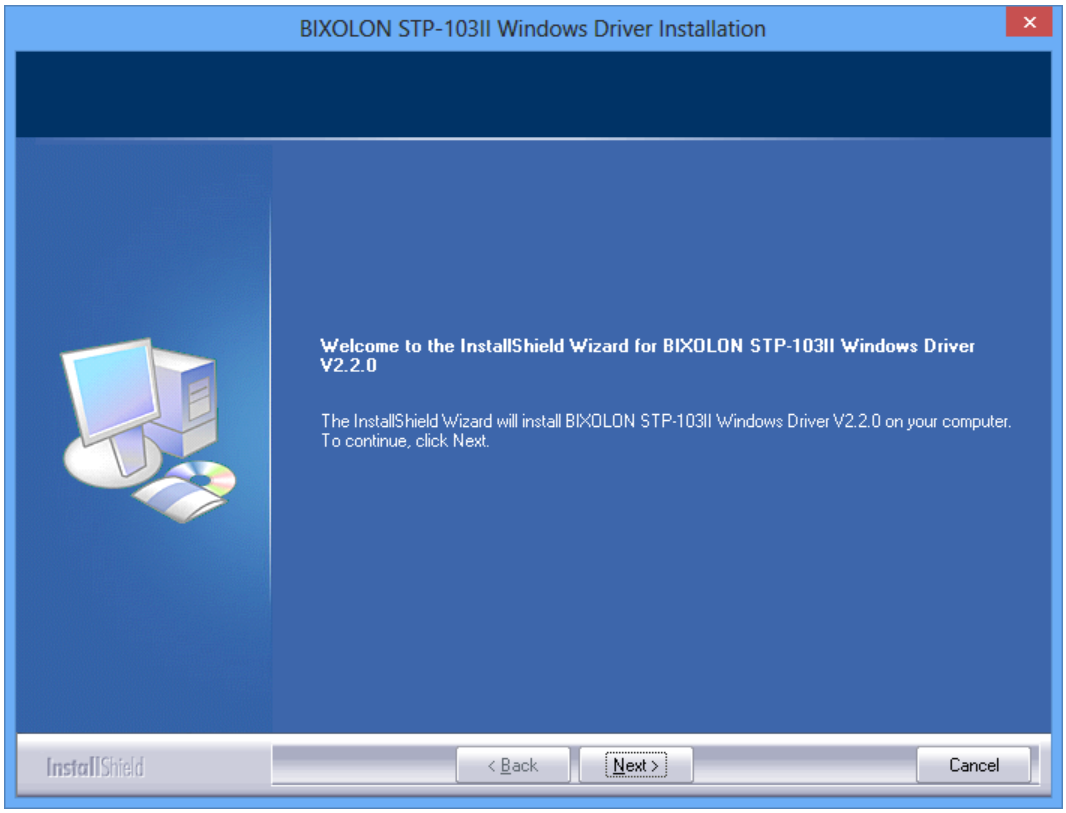
9) Click “Print Test Page” and check printing status. Proper installation of the driver is indicated if the test page is printed normally



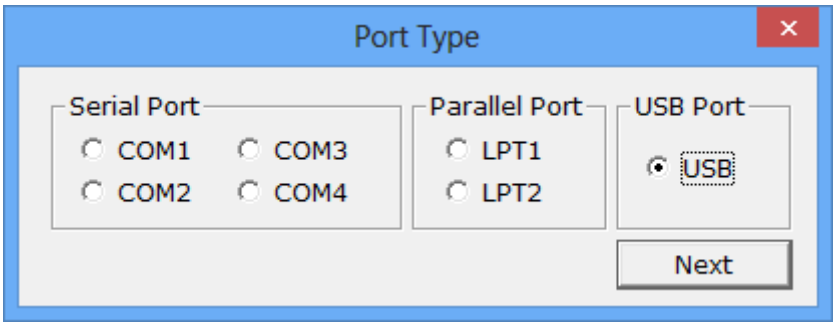
4-2-2 Via USB Port

1) Double-click the Windows Driver installation file.

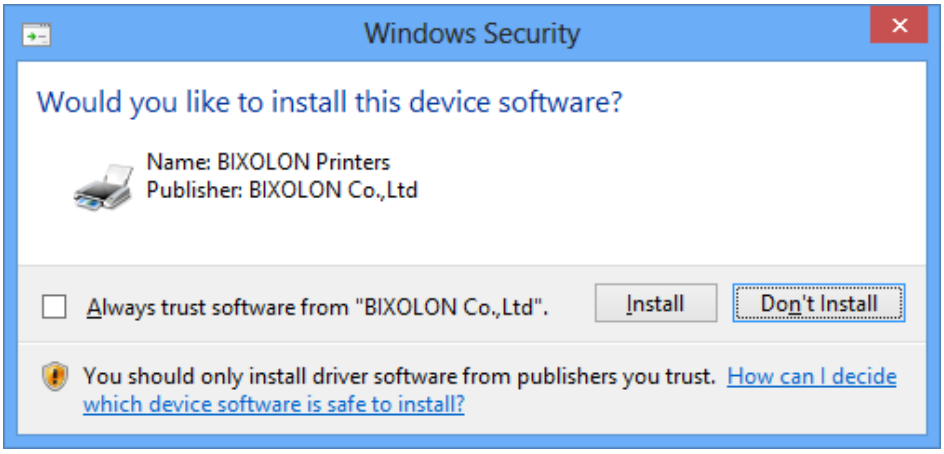
2) Click “Next”.


BIXOLON STP-103II Windows Driver Installation
Welcome to the InstallShield Wizard for BIXOLON STP-103II Windows Driver V2.2.0
The InstallShield Wizard will install BIXOLON STP-103II Windows Driver V2.2.0 on your computer. To continue, click Next.
InstallShield
< Back
Next >
Cancel

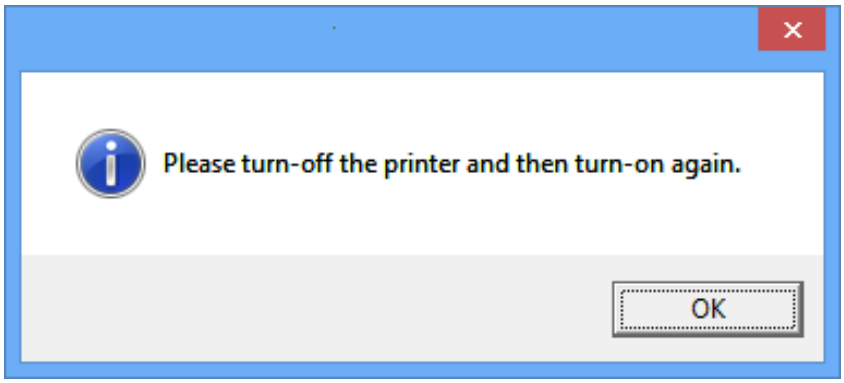
3) Select “USB” and then click “Next”.



4) When the following message box appears, click “Install”.


Windows Security
Would you like to install this device software?
Name: BIXOLON Printers
Publisher: BIXOLON Co.,Ltd
Always trust software from "BIXOLON Co.,Ltd".
Install
Don't Install
You should only install driver software from publishers you trust. How can I decide which device software is safe to install?

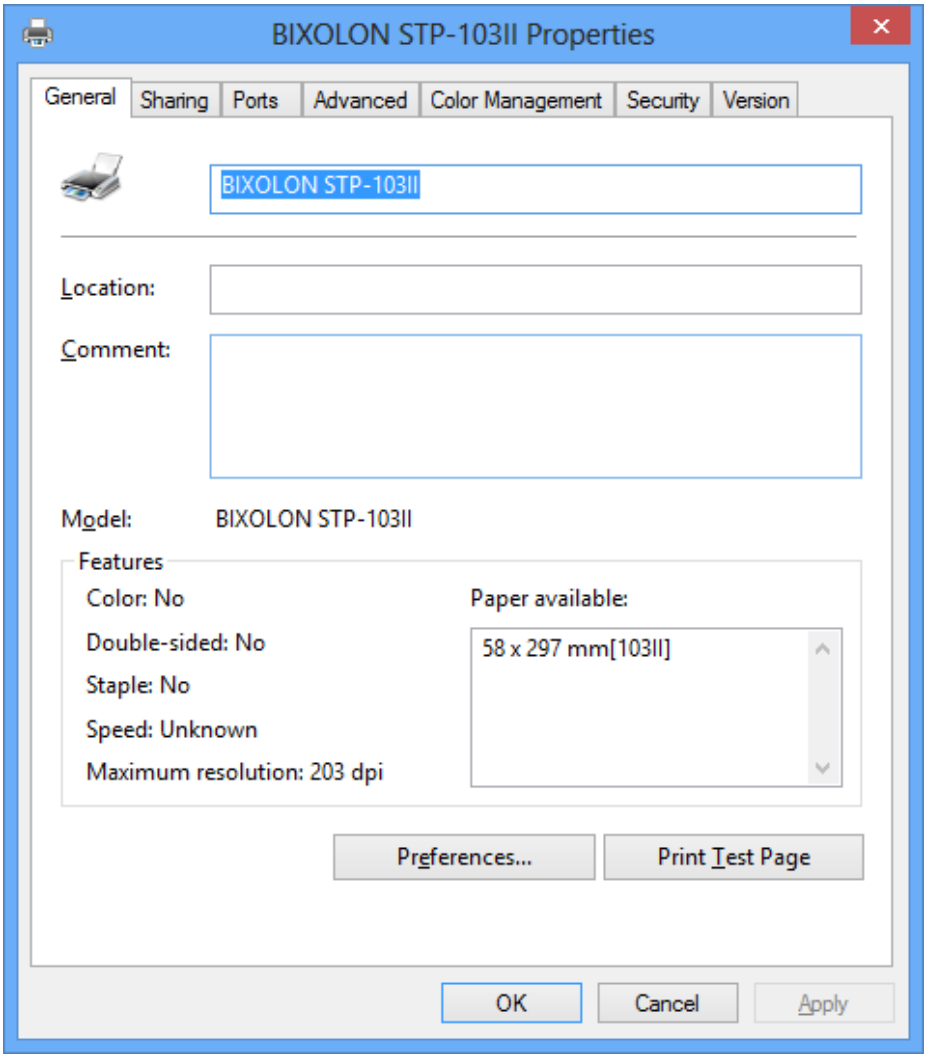
5) Click the “OK”.



6) Turn off the printer and then turn it on. The printer driver will be installed automatically.

7) Open the printer properties window in the Windows OS.
※ Control Panel – Hardware and Sound – Device and Printers.

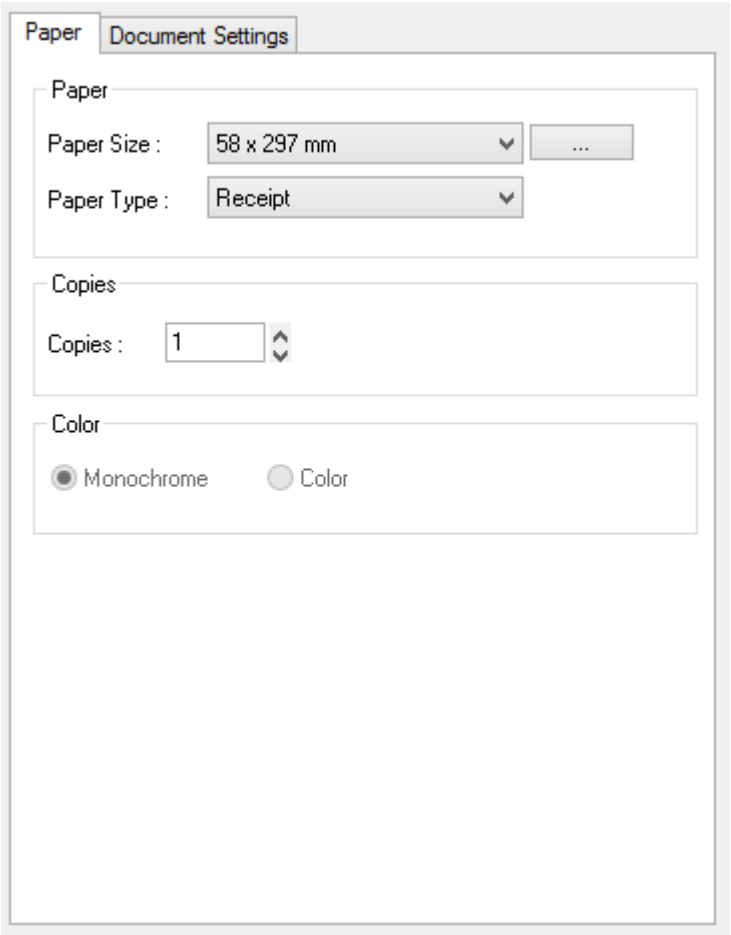
8) Click “Print Test Page” and check printing status. Proper installation of the driver is indicated if the test page is printed normally.



5. Windows Driver Settings

The following functions can be configured after installing the Windows driver.

5-1 Paper



1) Open the Printer Properties window for the corresponding OS.
2) Click the “Preferences” button in the “General” tab.
3) Click “Paper” Tab.

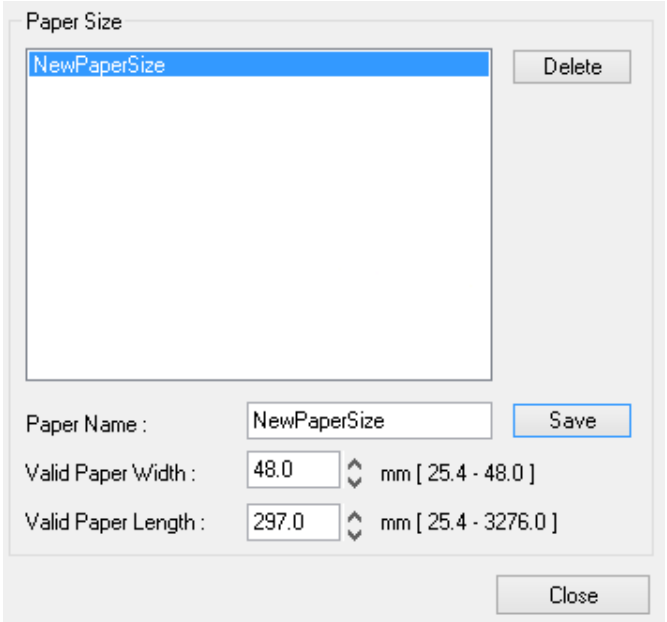
5-1-1 Paper Size

Paper size of 58 x 297 mm is selected by default, and the following sizes can be selected.

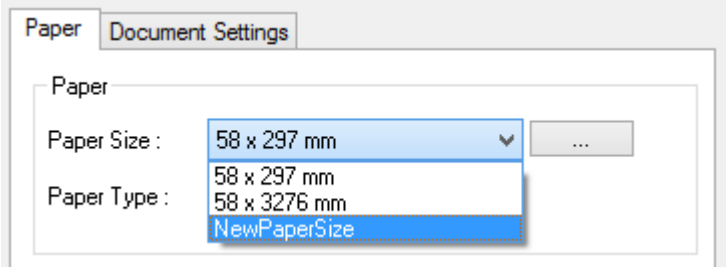
58 × 297 mm 58 × 3276 mm

If a custom paper size is required, click the "…" button to add or update a custom paper size and then, click the "Save" button after specifying the paper width/length and a paper name. If the specified paper name already exists on the system, you can update the paper width/length.

Valid Paper Width	:	25.4 mm ~ 48.0 mm
Valid Paper Length	:	25.4 mm ~ 3276 mm



You can choose the new paper size on the "Paper Size" combo-box after adding a paper size.

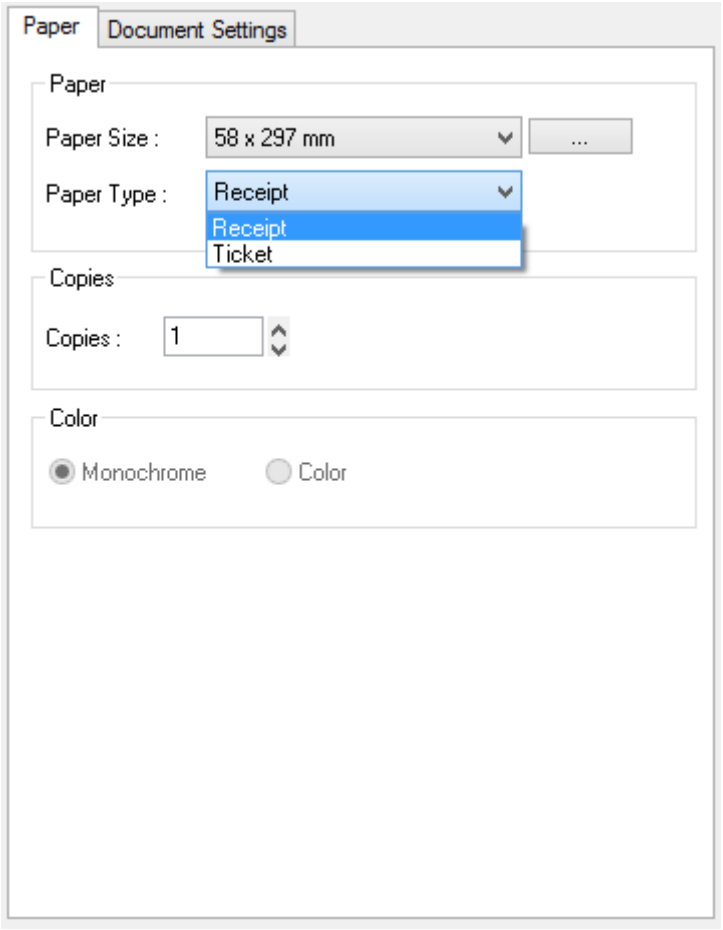


Delete button: Deletes the paper size selected in the list.
Save button: Adds a new paper size or update the paper size selected in the list if the paper name already exists on the system.

5-1-2 Paper Type

You can choose Receipt or Ticket as paper types. Receipt allows flexible paper length according to the data length. Ticket print in fixed length even the print data is short. Default setting is “Receipt”.

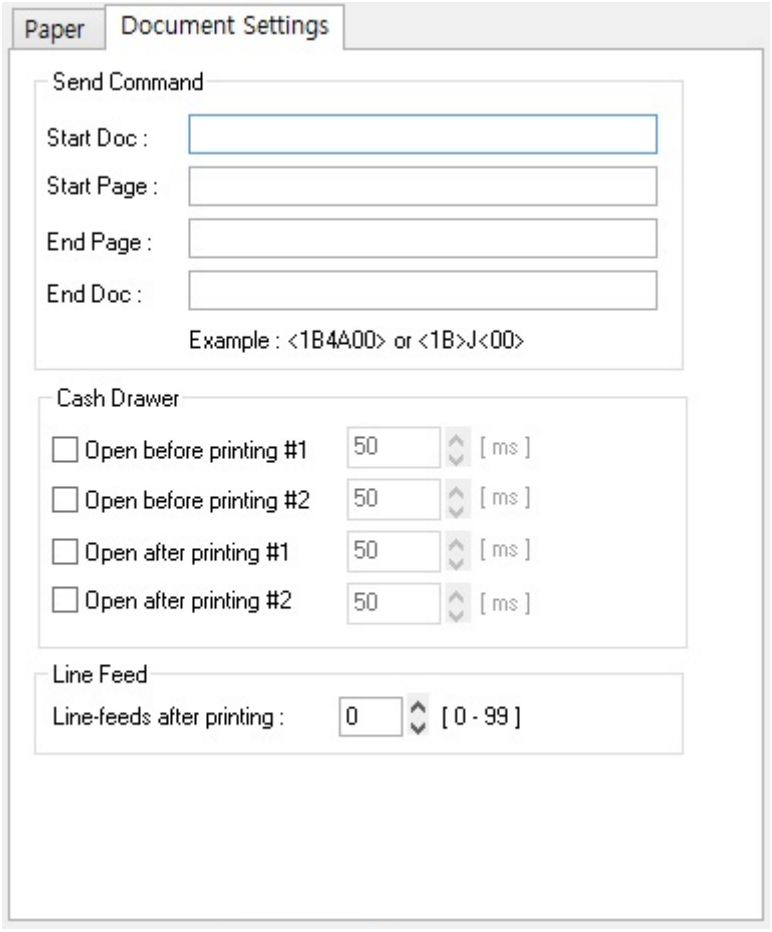
Receipt : Receipt allows flexible paper length according to the data length.
Ticket : Ticket print in fixed length even the print data is short.



5-1-3 Copies

Copies are printed by specifying the copy count. The copy count is set to 1 by default. Set this value bigger than 1 to set the number of copies to print. The value should be within the range of 1 to 255.

5-2 Document Settings



1) Open the Printer Properties window for the corresponding OS.
2) Click the “Preferences” or “Printing Preferences” button in the “General” tab.
3) Click “Document Settings” Tab.

5-2-1 Send Commands

The Windows driver serves to receive the content for print from an application and send it to the printer. The “Send Commands” function allows for the addition of desired commands at the start or end of the print content.

Start Doc : Addition of command at the beginning of the document.
Start Page : Addition of command at the beginning of the page.
End Page : Addition of command at the end of the page.
End Doc : Addition of command at the end of the document.

For more information on the hexadecimals that can be entered in “Start Doc”, “Start Page”, “End Page” and “End Doc”, refer to the Control Commands Manual.

5-2-2 Cash Drawer

To open a cash-drawer before printing, tick “Open before printing #1” or “Open before printing #2” in the “Cash Drawer” and then click “OK”.

To open a cash-drawer after printing, tick “Open after printing #1” or “Open after printing #2” in the “Cash Drawer” and then click “OK”.

5-2-3 Line Feed

Enter the number between 0 and 99 for adding blank lines at the end of printing.

6. Windows Driver Specifications

6-1 Fonts

The Windows Driver of the printer supports the fonts listed below.
Printing is done at faster speed when using the fonts below as opposed to the Windows fonts of the OS.

Printer Fonts			Character Size (dot)	Sizes (point)
FontA1x1	FontA1x1[Ext.]	FontA1x1[255]	FontA1x1(12x24)	8.5
FontA1x2	FontA1x2[Ext.]	FontA1x2[255]	FontA1x2(12x48)	17
FontA2x1	FontA2x1[Ext.]	FontA2x1[255]	FontA2x1(24x24)	8.5
FontA2x2	FontA2x2[Ext.]	FontA2x2[255]	FontA2x2(24x48)	17
FontA2x4	FontA2x4[Ext.]	FontA2x4[255]	FontA2x4(24x96)	34
FontA4x2	FontA4x2[Ext.]	FontA4x2[255]	FontA4x2(48x48)	17
FontA4x4	FontA4x4[Ext.]	FontA4x4[255]	FontA4x4(48x96)	34
FontA4x8	FontA4x8[Ext.]	FontA4x8[255]	FontA4x8(48x192)	68
FontA8x4	FontA8x4[Ext.]	FontA8x4[255]	FontA8x4(96x96)	34
FontA8x8	FontA8x8[Ext.]	FontA8x8[255]	FontA8x8(96x192)	68
FontB1x1	FontB1x1[Ext.]	FontB1x1[255]	FontB1x1(9x17)	6
FontB1x2	FontB1x2[Ext.]	FontB1x2[255]	FontB1x2(9x34)	12
FontB2x1	FontB2x1[Ext.]	FontB2x1[255]	FontB2x1(18x17)	6
FontB2x2	FontB2x2[Ext.]	FontB2x2[255]	FontB2x2(18x34)	12
FontB2x4	FontB2x4[Ext.]	FontB2x4[255]	FontB2x4(18x68)	24
FontB4x2	FontB4x2[Ext.]	FontB4x2[255]	FontB4x2(36x34)	12
FontB4x4	FontB4x4[Ext.]	FontB4x4[255]	FontB4x4(36x68)	24
FontB4x8	FontB4x8[Ext.]	FontB4x8[255]	FontB4x8(36x136)	48.5
FontB8x4	FontB8x4[Ext.]	FontB8x4[255]	FontB8x4(72x68)	24
FontB8x8	FontB8x8[Ext.]	FontB8x8[255]	FontB8x8(72x136)	48.5
FontC1x1	FontC1x1[Ext.]	FontC1x1[255]	FontC1x1(9x24)	8.5
FontC1x2	FontC1x2[Ext.]	FontC1x2[255]	FontC1x2(9x48)	17
FontC2x1	FontC2x1[Ext.]	FontC2x1[255]	FontC2x1(18x24)	8.5
FontC2x2	FontC2x2[Ext.]	FontC2x2[255]	FontC2x2(18x48)	17
FontC2x4	FontC2x4[Ext.]	FontC2x4[255]	FontC2x4(18x96)	34
FontC4x2	FontC4x2[Ext.]	FontC4x2[255]	FontC4x2(36x48)	17
FontC4x4	FontC4x4[Ext.]	FontC4x4[255]	FontC4x4(36x96)	34
FontC4x8	FontC4x8[Ext.]	FontC4x8[255]	FontC4x8(36x192)	68
FontC8x4	FontC8x4[Ext.]	FontC8x4[255]	FontC8x4(72x96)	34
FontC1x1	FontC1x1[Ext.]	FontC1x1[255]	FontC1x1(9x24)	8.5

Printer Fonts are defined as follows.

1) FontA1x2
   - ANSI Character code support (Code Page 1252)
   - Character size (dot): 12 x 24 (double height)
   - Sizes (point): 17

2) FontA1x2[Ext.]
   - IBM expansion Character code support (Code Page 437)
   - Character size (dot): 12 x 24 (double height)
   - Sizes (point): 17

3) FontA1x2[255]
   - Buyer exclusive code support (User Code Page)
   - Character size (dot): 12 x 24 (double height)
   - Sizes (point): 17

6-2 Special Functions

This Windows driver supports the special functions as shown in the following table. Select the “FontControl” font first and use the characters in the table to use the special functions. Take care as this function is not for printing general texts.

This function is not an ordinary character printing function. Take special care.

Character	Special Functions
5	Print HT (0 x 09)
6	Print LF (0 x 0A)
7	Print CR (0 x 0D)
a	Open Drawer 2 (50ms driver pulse width)
b	Open Drawer 2 (100ms driver pulse width)
c	Open Drawer 2 (150ms driver pulse width)
d	Open Drawer 2 (200ms driver pulse width)
e	Open Drawer 2 (250ms driver pulse width)
f	Open Drawer 2 without paper feeding (50ms driver pulse width)
p	Do not add HRI characters to barcode
q	Adds HRI characters in Font A above the barcode
r	Adds HRI characters in Font A below the barcode
s	Adds HRI characters in Font B above the barcode
t	Adds HRI characters in Font B below the barcode
u	Turns white/black reverse printing mode on
v	Turns white/black reverse printing mode off
w	Align text to the left
x	Align text to the center
y	Align text to the right
A	Open Drawer 1 (50ms driver pulse width)
B	Open Drawer 1 (100ms driver pulse width)
C	Open Drawer 1 (150ms driver pulse width)
D	Open Drawer 1 (200ms driver pulse width)
E	Open Drawer 1 (250ms driver pulse width)
F	Open Drawer 1 without paper feeding (50ms driver pulse width)
G	Prints 1st NV bit image
H	Prints 2nd NV bit image
I	Prints 3rd NV bit image
J	Prints 4th NV bit image
K	Prints 5th NV bit image
[	Prints 1st NV bit image (Double Size)
]	Prints 2nd NV bit image (Double Size)
^	Prints 3rd NV bit image (Double Size)
_	Prints 4th NV bit image (Double Size)
`	Prints 5th NV bit image (Double Size)

1) Sample Use

If the “FontControl” font is selected and 6 is entered, the “LF” (Line Feeding) operation is activated. (does not entail the printing of the character “6)

2) “FontControl” Font Function

Printer Font for Special Function	Function	Size (point/dot)
FontControl	Justification (Left/Center/Right) Output HT, Output LF, Output CR Barcode Printing Print NV Graphic Data	(8.5 / 12x24)

6-3 Barcodes

The Windows Driver supports the barcodes indicated below.
This function is available when entering barcode data after selecting “Printer Font Name”.
In addition, the “FontControl” font can be used to add HRI characters.

Printer Font Name	Size (Point)	Supported Characters
Codabar	18/35.5/53/71	Numeric: 0~9 Symbols: $, +, -, ., /, : Letters: A~D
Code39	18/35.5/53/71	Numeric: 0~9 Symbols: $, +, -, ., / Letters: A~Z
JAN13 (EAN)	18/35.5/53/71	Numeric: 0~9
JAN8 (EAN)	18/35.5/53/71	Numeric: 0~9
ITF	18/35.5/53/71	Numeric: 0~9
UPC-A	18/35.5/53/71	Numeric: 0~9
UPC-E	18/35.5/53/71	Numeric: 0~9
Code93	18/35.5/53/71	ASCII CODE: 0~127
Code128	18/35.5/53/71	ASCII CODE: 0~127

1) Sample Use

Select “Code39” and Size “18”, and then enter “1234”.
The barcode corresponding to “1234” is printed.

2) When Using Code128

Select “Code128” and Size “18”, and then enter “{B1234”.
The barcode corresponding to “1234” is printed.

When using “Code128”, characters, such as “{A”, “{B”, “{C”, should be included before the input data.

6-4 Two-Dimensional Barcodes

The Windows Driver supports the following two-dimensional barcodes.

- PDF417
- QR code

Usage is identical to that for barcodes.

7. Use of Windows Driver

7-1 Use of Visual Basic

This section contains example codes to control the printer using Windows driver with Visual Basic. Sample codes contained in the CD.

7-1-1 Windows Driver Selection

The following code is an example of the selection of the “BIXOLON STP-103II” Windows Driver.

```
For Each prnPrinter In Printers

If prnPrinter.DeviceName = “BIXOLON STP-103II” Then

Set Printer = prnPrinter

Exit For

End If

Next
```

7-1-2 Test Printing

The following code is an example of the printing of Arial Test via the Windows font, and FontA1x1Test via the printer font.

```
‘Print in Windows font
Printer.FontSize = 9
Printer.FontName = “Arial”
Printer.Print “Arial Test”


‘Print in printer font
Printer.FontSize = 8.5
Printer.FontName = “FontA1x1”
Printer.Print “FontA1x1Test”

Printer.EndDoc
```

7-1-3 Barcode Printing

The following code is an example of the printing of the JAN8 (EAN) barcode.

```
'Print Bar Code.
Printer.FontSize = 18

Printer.FontName = "JAN8 (EAN)"
Printer.Print "1234567"

Printer.EndDoc
```

7-1-4 Two-Dimensional Barcode Printing

The following code is an example of the printing of the PDF417 two-dimensional barcode.

```
'Print Two-dimensional Codes.
Printer.FontSize = 8.5

Printer.FontName = "PDF417"
Printer.Print "Print Test PDF417"

Printer.EndDoc
```

7-2 Use of WordPad

7-2-1 WordPad Environment Settings

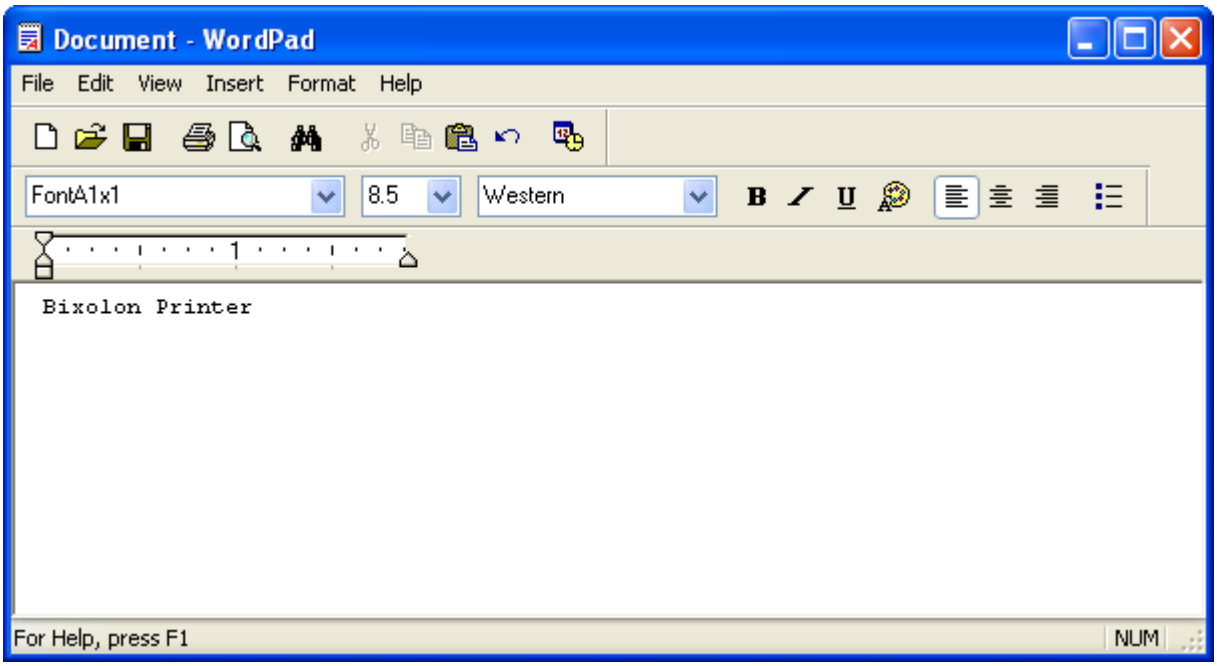
After running WordPad and setting the following conditions, conduct a test.

- Select Printer
  After selecting “Print” from the “File” tab, select the printer (BIXOLON STP-103II).

- Select Paper Size, Orientation, and Margins
  After selecting “Page Settings” from the “File” tab, select the paper size, orientation, and margins.

7-2-2 Text Printing

Use the Windows Driver of the printer to run a test.



1) Select the desired font from the Font menu (FontA1x1).

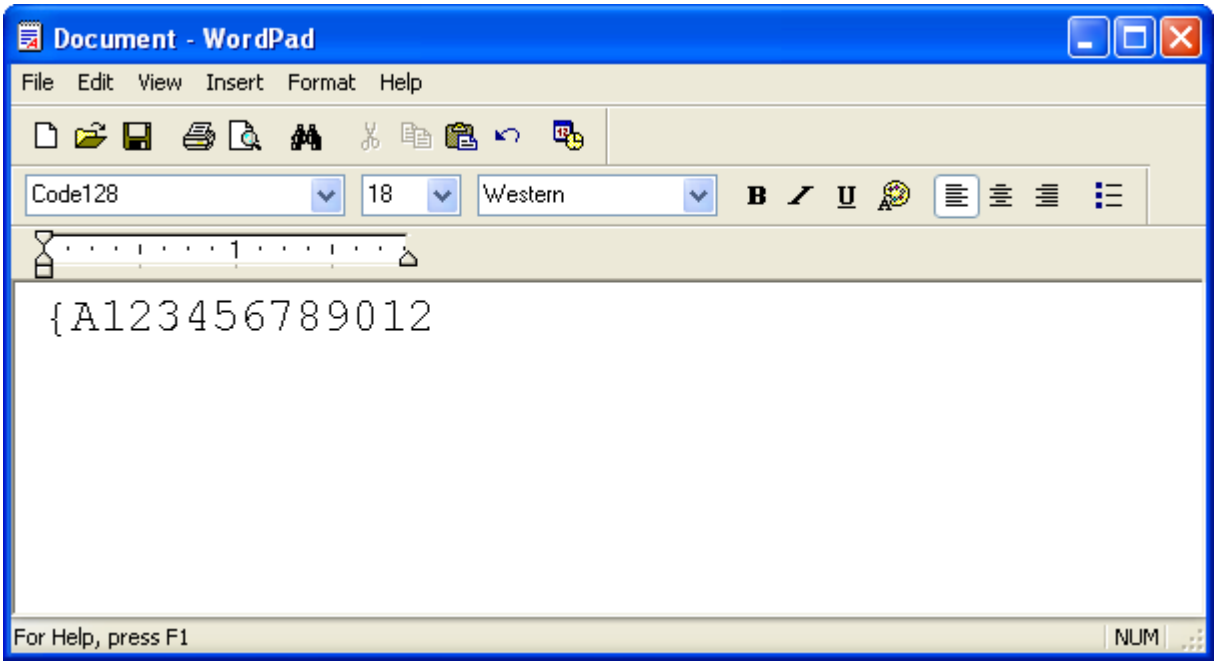
2) Select the desired font size (8.5).

3) Enter the text to be printed in WordPad.

4) Click the Print button in the toolbar to print.

7-2-3 Barcode Printing

Use the Windows Driver of the printer to print the barcode.



1) Select the desired barcode from the Font menu (Code128).

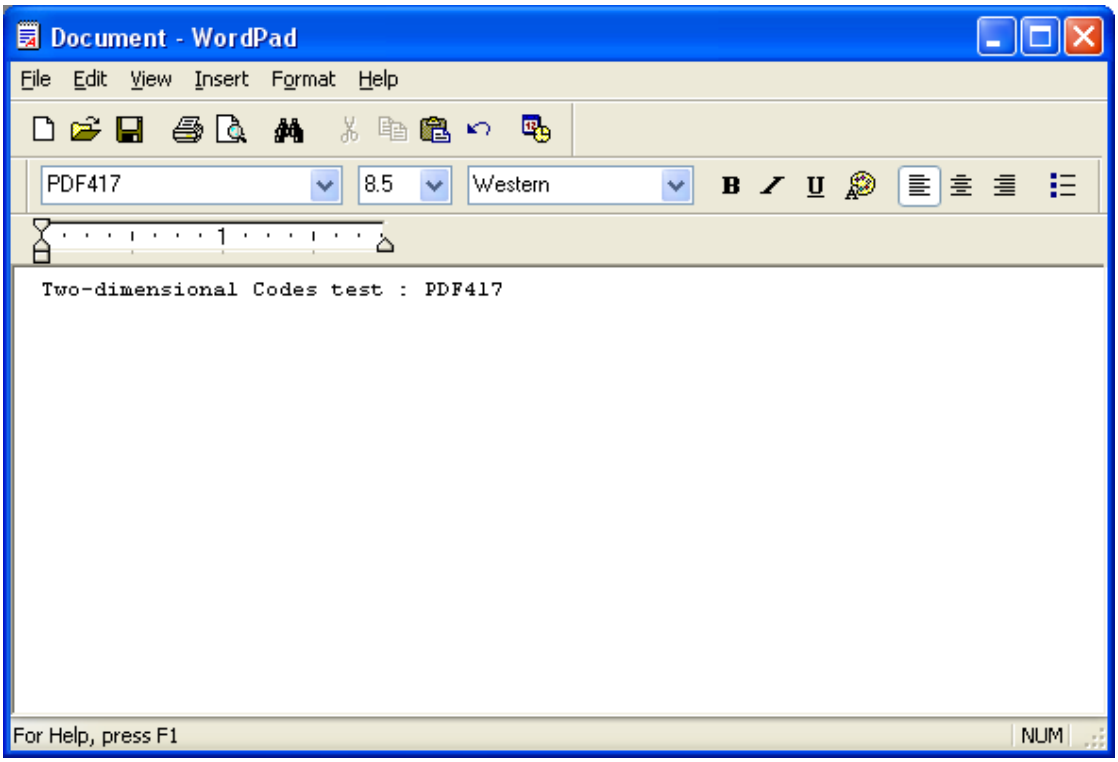
2) Select the desired font size (18).

3) Enter “{A123456789012” in WordPad.

4) Click the Print button in the toolbar to print.

7-2-4 Two-Dimensional Barcode Printing

Use the Windows Driver of the printer to print the two-dimensional barcode.



1) Select the desired two-dimensional barcode from the Font menu (PDF417).

2) Select the desired font size (8.5).

3) Enter “Two-dimensional Codes Test: PDF417” in WordPad.

4) Click the Print button in the toolbar to print.